CLAIMS

1. A speech system, comprising:

a speech server;

an interaction object that is callable by one or more speech-enabled applications to enable a speech-enabled application to submit an interaction to the speech server;

an interaction manager configured to prioritize interactions submitted to the speech server by ordering the interactions in an interaction list, the interaction list having a front and an end, wherein an interaction at the front of the interaction list is processed before other interactions in the interaction list are processed; and

wherein the interaction manager places an interaction received from a speech-enabled application at the end of the interaction list unless the interaction manager detects an indication to place the interaction received from the speech-enabled application at the front of the interaction list ahead of other interactions in the interaction list.

2. The speech system as recited in claim 1, wherein the interaction manager places the interaction received from the speech-enabled application at the front of the list if the interaction manager detects an interruption flag in the interaction received from the speech-enabled application.

3. The speech system as recited in claim 2, wherein the interaction manager interrupts an interaction currently processing when the interaction is placed at the front of the list, and the interrupted interaction resumes processing after the interrupting interaction is processed.

4. The speech system as recited in claim 2, wherein the interaction manager interrupts an interaction currently processing when the interaction is placed at the front of the list, and the interrupted interaction does not resume processing after the interrupting interaction is processed.

5. The speech system as recited in claim 2, wherein the interaction manager interrupts an interaction currently processing when the interaction is placed at the front of the list, and the interrupted interaction does not resume processing after the interrupting interaction is processed if a self-destruct flag is set in the interaction.

6. The speech system as recited in claim 2, wherein the interaction manager does not interrupt an interaction currently processing when the interaction is placed at the front of the list, but processes the interrupting interaction after the currently processing interaction has completed processing if the currently processing interaction will conclude processing in less than a predetermined period of time.

7. The speech system as recited in claim 2, wherein the interaction manager only interrupts an interaction currently processing if the currently processing interaction will not conclude processing for more than a predetermined period of time.

8. The speech system as recited in claim 2, wherein the interaction manager provides feedback to a speech-enabled application that has submitted an interaction in the interaction list, the feedback indicating a status of the processing of the interaction submitted by the speech-enabled application.

9. The speech system as recited in claim 1, wherein the indication to place the interaction at the front of the interaction list comes from the speech-enabled applications.

10. The speech system as recited in claim 1, further comprising a speech engine that communicates with the speech server through a speech application programming interface.

11. The speech system as recited in claim 1, further comprising a table of attributes associated with a grammar used by a speech-enabled application that has submitted an interaction to the speech system.

12. The speech system as recited in claim 1, further comprising a master grammar table that contains a table of attributes for each of one or more grammars that are used by the speech-enabled applications.

13. The speech system as recited in claim 1, wherein the interaction manager provides a grace period after processing a first interaction before beginning to process a second interaction.

14. The speech system as recited in claim 13, wherein the interaction manager is further configured to place a chained interaction at the front of the interaction list if the chained interaction is received during a grace period after processing the first interaction and if the chained interaction is submitted by the same speech-enabled application that submitted the first interaction, even if the chained interaction does not indicate that it is to be placed at the front of the list and the chained interaction is submitted after the second interaction is submitted.

15. A method for processing speech interactions from multiple speech-enabled applications, comprising:

receiving an interaction submitted by one of the speech-enabled applications;

determining if the interaction is an interrupting interaction;

placing the interaction in an interaction list having a front and a back and containing from one to several interactions to be processed in order from the front to the back, wherein the interaction is placed at the back of the interaction list

unless the interaction is an interrupting interaction, in which case the interaction is placed at the front of the interaction list; and

processing the interaction when it is at the front of the list.

16. The method as recited in claim 15, wherein the interaction list is a list of pointers to memory locations that contain the interactions submitted to the interaction list.

17. The method as recited in claim 15, further comprising sending one or more status messages to the application that submitted the interaction to inform the application of the status of the processing of the submitted interaction.

18. The method as recited in claim 17, wherein the one or more status messages sent to the application that submitted the interaction further comprises one or more of the following messages: interaction activated; interaction interrupted; interaction self-destructed; interaction re-activated; and/or interaction completed.

19. The method as recited in claim 15, wherein the determining if the interaction is an interrupting interaction further comprises checking for the presence of an interruption flag in the interaction that, if present, indicates that the interaction is an interrupting interaction.

20. The method as recited in claim 15, wherein the interaction is a first interaction and the method further comprising waiting a pre-determined grace period after the first interaction is processed before beginning processing of a second interaction submitted from a different speech-enabled application from the speech-enabled application that submitted the first interaction.

21. The method as recited in claim 20, further comprising:

receiving a third interaction during the grace period, the third interaction being submitted from the speech-enabled application that submitted the first interaction; and

processing the third interaction prior to processing the second interaction.

22. One or more computer-readable media containing computer executable instructions that, when executed on a computer, perform the following steps:

maintaining an interaction list that includes multiple speech interactions received from multiple speech-enabled applications;

identifying a front of the interaction list and a back of the interaction list, the interactions in the interaction list to be processed in order from front to back;

processing a first interaction received from a first speech-enabled application when the first interaction is located at the front of the interaction list;

receiving a second interaction from a second speech-enabled application;

determining if the second interaction is an interrupting interaction;

if the second interaction is not an interrupting interaction, placing the second interaction at the back of the interaction list; and

if the second interaction is an interrupting interaction, placing the second interaction at the front of the interaction list and processing the second interaction.

23. The one or more computer-readable media as recited in claim 22, wherein the determining if the second interaction is an interrupting interaction further comprises determining that the second interaction if an interrupting interaction if an interruption flag in the second interaction is set.

24. The one or more computer-readable media as recited in claim 22, wherein the first interaction is associated with a first grammar and the second interaction is associated with a second grammar.

25. The one or more computer-readable media as recited in claim 22, further comprising:

processing the first interaction until it is completed;

pausing for a grace period before processing a second interaction; and

wherein the second interaction is not an interrupting interaction and, therefore, is placed at the back of the interaction list.

26. The one or more computer-readable media as recited in claim 25, further comprising:

receiving a third interaction during the grace period; and

if the third interaction is submitted from the first speech-enabled application, placing the third interaction at the front of the interaction list so that the third interaction is processed before the second interaction is processed if the first speech-enabled application indicates that the third interaction is a continuation of the first interaction.

27. The one or more computer-readable media as recited in claim 25, further comprising:

receiving a third interaction during the grace period; and

if the third interaction is not submitted from the first speech-enabled application, placing the third interaction at the back of the list.

28. The one or more computer-readable media as recited in claim 25, further comprising:

receiving a third interaction during the grace period;

determining if the third interaction is an interrupting application;

if the third interaction is an interrupting application, placing the third interaction at the front of the interaction list so that the third interaction is processed before the second interaction is processed; and

if the third interaction is not an interrupting application, placing the third interaction at the back of the interaction list.

29. A speech server, comprising:

an interaction object, callable by one or more speech-enabled applications to submit speech interactions to be processed by a speech engine that communicates with the speech server;

an interaction manager configured to determine a priority in which the speech interactions will be processed by the speech engine by maintaining an interaction list that has a front and a back, the speech interactions in the interaction list to be processed from the front of the interaction list to the back of the interaction list;

wherein the interaction manager places a speech interaction received from one of the speech-enabled applications at the back of the interaction list unless there is an indication for the interaction manager to place the speech interaction received from the speech-enabled application at the front of the interaction list.

30. The speech server as recited in claim 29, wherein the indication for the interaction manager to place the submitted speech interaction at the front of the interaction list further comprises an interruption flag set by the submitting speech-enabled application when the submitted speech interaction is to be placed at the front of the interaction list.

31. The speech server as recited in claim 29, wherein the indication for the interaction manager to place the submitted speech interaction at the front of the interaction list further comprises an interruption flag in the submitted speech interaction is set by the submitting speech-enabled application when the submitted speech interaction is to be placed at the front of the interaction list.

32. The speech server as recited in claim 29, further comprising a grammar table corresponding to an interaction grammar used by the submitted interaction, the grammar table including one or more grammar attributes associated with the interaction grammar.

33. The speech server as recited in claim 32, further comprising a master grammar table that includes a grammar table for each interaction grammar that is used by the speech-enabled applications.

34. The speech server as recited in claim 29, further comprising a stub object that is called by the speech-enabled applications to call the interaction object.

35. The speech server as recited in claim 29, further comprising a stub object that is called by a proxy associated with each speech-enabled application to call the interaction object.

36. The speech server as recited in claim 29, wherein the interaction manager provides a grace period between processing speech interactions in the interaction list.

37. The speech server as recited in claim 36, wherein:

the speech interaction is a first speech interaction; and

if a second speech interaction is submitted by the same speech-enabled application that submitted the first speech interaction during the grace period after the first speech interaction is processed, the interaction manager places the second speech interaction at the front of the interaction list.

38. The speech server as recited in claim 36, wherein:

the speech interaction is a first speech interaction; and

if a second speech interaction is submitted by a different speech-enabled application that submitted the first speech interaction during the grace period after the first speech interaction is processed, the interaction manager places the second speech interaction at the front of the interaction list if there is an indication for the interaction manager to place the speech interaction received from the speech-enabled application at the front of the interaction list.